

ABSTRACT OF THE DISCLOSURE

A method of manufacturing an amorphous alloy core including the steps of mixing an amorphous alloy powder with a solution made by dissolving a polyimide/phenolic resin binder in an organic solvent, evenly coating the binder in liquid phase on the surface of the alloy powder to make a powder of composite particles, molding the power of composite particles, and performing a heating treatment thereon. This invention also discloses a method of manufacturing a nano-crystal alloy core including the steps of (a) mixing an amorphous alloy powder with a solution made by dissolving a polyimide/phenolic resin binder in an organic solvent, evenly coating the binder in the liquid phase on the surface of the alloy powder to make composite particles, molding the composite particles at room temperature, and performing a heating treatment thereon at a temperature higher than the crystallization starting temperature of the alloy; and (b) performing a heating treatment on an amorphous alloy powder at over a crystallization starting temperature to make a nano-crystal phase, mixing a solution made by solving a polyimide/phenolic resin binder in an organic solvent therewith, evenly coating the binder in liquid phase on the surface of the alloy powder to make composite particles, and molding the power of composite particles at 100 to 300°C.